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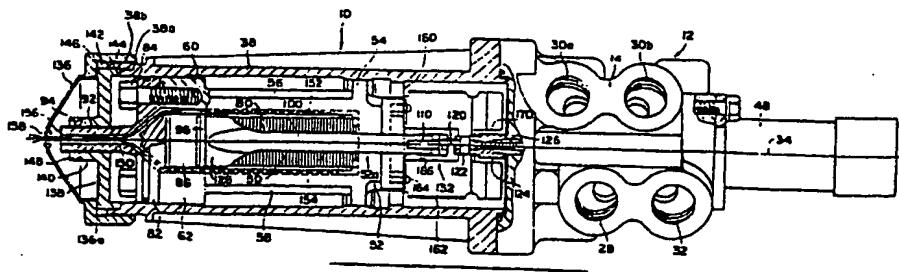
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54) Piezoelectric actuator having parallel arrangement of a single piezoelectric element and a pair of displacement magnification arms.

(57) A linear expansion or contraction of a piezoelectric element (150) is converted into a corresponding magnified linear movement of an output member (120) by a series combination of a pair of magnifying lever arms (100, 102) supported via a pair of elastic integral hinges (96, 98) and a pair of links (110, 112; 206, 208).

FIG. 1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Y	US-A-4 570 095 (UCHIKAWA) * Abstract; figures 1,2; column 3, lines 6-28 *	1-4	H 01 L 41/08 F 16 K 31/00
A	---	11-14	
Y	GB-A-2 002 564 (OLEF TRETIAKOFF) * Abstract; figures 4,7; page 5, lines 29-80 *	1-4	
A	---		
A	GB-A-2 802 564	6,7	
A	---		
A	EP-A-0 163 497 (NEC CORP.) * Abstract; figures 1,2; page 3, line 5 - page 41, line 20 *	1-3	
A	---		
A	US-A-4 703 215 (ASANO) * Abstract; figure 1; column 2, lines 1-32 *	1-3	
A	---		
A	DE-A-3 602 673 (TOKYO JUKI INDUSTRIAL CO.) * Abstract; figures 5A-5B; page 2, line 19 - page 3, line 29 *	4,5,9, 10	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
<p>The present search report has been drawn up for all claims</p>			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	04-12-1989	MIMOUN B.J.	
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			